

**APPENDIX B:**  
**STAFF RESPONSE TO COMMENTS**



**WATER BOARD STAFF RESPONSE TO THE ONE SET OF COMMENTS RECEIVED ON THE BAIR ISLAND RESTORATION PROJECT: We have incorporated all the requested changes below made by Lisa Stallings on behalf of the U.S. Fish and Wildlife Service.**

**From:** "Lisa Stallings" <lisa@lifescienceinc.com>  
**To:** "'Andree Breaux'" <ABreaux@waterboards.ca.gov>  
**Date:** Thursday, February 14, 2008 12:59:16 PM  
**Subject:** Riewview of Bair Island T.O

Dear Ms. Breaux:

I am acting as the US Fish and Wildlife's project manager Bair Island Restoration project design preparation and am responsible for preparing the permit applications for the project.

After reviewing the Tentative Order for the project I noticed several errors and omissions. I am sure that these crept into the Report of Waste Discharge by cutting and pasting from the multiple revisions to the EIR/EIS project description and the final design.

Since the revisions are somewhat complex, I am attaching an edited copy of the pertinent sections of the Tentative Order.

In summary, there are nine (9) breaches planned for the project:

Two (2) breaches (IB1 and IB2) planned for inner Bair Island; these will be constructed when the flow constrictor FC2 in Smith Slough is completed.

There are four (4) breaches (MB1, MB3, MB4, and MB5) planned for Middle Bair; these will be constructed after both flow constrictors (FC1 and FC2) are completed.

There are three (3) breaches (OB1, OB3, and OB4) planned for Outer Bair; OB1 and OB4 will be constructed in the fall of 2008. The final breach OB3 will be constructed as soon as flow constrictor F1 is completed.

Please feel free to contact me if you have any questions or comments.

Lisa Stallings, Ph.D.  
Life Science!

**CC:** [Clyde\\_Morris@fws.gov](mailto:Clyde_Morris@fws.gov)

**Requested Changes to the Bair Island Tentative Order follow and are numbered by the Finding:**

17. Tasks already approved by the Water Board's Water Quality Certification at Inner Bair Island include the following: a combination of upland fill and dredged material will be used to expand the southern levee of Inner Bair

Island to protect the SBSA sewer line, raise the San Carlos Airport property above the 100-year flood plain, and create a cross-levee and raise the perimeter levee to contain material dredged from the Port of Redwood City ship channel. Levees will be breached at the historic slough channel locations (IB1 and IB2) on Inner Bair and borrow ditch cutoff berms will be created to prevent tidal capture by the existing borrow ditches. Fill will be used to raise ground levels on Inner Bair from current elevations of approximately 0.0 to between 2.0 and 3.0 feet NGVD, requiring between 1,000,000 to 1,500,000 cubic yards of fill. Once the fill placement is completed, the dredge material cross levee will be graded down to match the upland fill surface and started channels will be created.

18. The following tasks will be performed to prepare Middle and Outer Bair Islands for restoration (see attached plan figures for locations of all permitted structures). These will follow pre-project *Spartina alterniflora* control efforts by others (the *Spartina* Control Project Group) which are deemed important by the Refuge in the project vicinity:

Task 1: Breach Outer Bair Island to Steinberger Slough at levee breach locations OB1 and OB4 (fall 2008). Construct ditch blocks OBDB1 and OBDB2.

Task 2: Build flow restrictor (FC1) in Corkscrew Slough including fill and rock placement and construction of kayak portage Build Flow constrictor (FC2) in Smith Slough including rock placement on Inner Bair Island breaches (summer 2009).

Task 3: Construct Middle Bair Island Decant Water Placement Improvements.

Task 4: Construct ditch blocks MBDB1 through MBDB4; and channel connectors MBCC1 through MBCC4 and subsequently breach Middle Bair Island (2009) at MB1, MB3, MB4, and MB5. Breach Outer Bair at OB3 once flow constrictor in Corkscrew Slough is completed

#### Task 1: Outer Bair Levee Breach

19. Beginning in September 2008, excavation will begin at OB1 and OB4 to remove existing wetland vegetation in preparation for breaching the levee in accordance with the FWS biological permit requirements. Under the guidance of a qualified biologist, a maximum of 1.54 acres of existing pickleweed plants will be hand-removed with a weed-eater prior to mechanical ground disturbance.

The weed-eater will start in the middle and work outward to avoid trapping mice in the last remaining area to be removed. An amphibious excavator or bulldozer (transported by raft or helicopter) will be used to excavate material from the salt marsh outside of the levee to create the new channel for tidal flows. The excavated substrate will be used to create two ditch blocks in the borrow ditches at OBBD1 and OBDB2 and in the eastern borrow ditch of Outer Bair Island. If additional material is required to block the borrow ditches, up to 12,000 linear feet (0.55 acres) of the levee on the western edge of Outer Bair Island along Steinberger Slough may be graded to a height no lower than +6 feet NGVD (after pickleweed removal). The new tidal channel will be excavated through the existing pickleweed mass from Steinberger Slough towards the levee with the last block left in place until low tide to ease excavation and minimize sediment transport. This process is anticipated to require two weeks to a month, however, a larger block of time has been allocated. Task 1 is anticipated to be completed by the end of January 2008. Outer Bair Island will be exposed to tidal action at OB1 and OB4

Task 2: Build Flow Restrictor (FC1) in Corkscrew Slough Flow Constrictor (FC2) in Smith Slough Including Fill and Rock Placement.

20. Beginning in mid-June of 2009, the flow restrictor in Corkscrew Slough

will be constructed using water- and land-based heavy equipment. The Corkscrew Slough structure will be approximately 300 feet long, 30 feet wide, and will crest at +5.1 with a 30 foot notch in the center to allow a limited flow of water and small boat passage at high tide. Corkscrew Slough will be posted as a 5 mph no wake zone to further minimize impacts from recreational boating. The flow restrictor berm will be constructed of excavated or import fill, quarry stone or of linked cellular coffer. If quarry stone is used, it will be placed directly into the channel. Linked cellular coffer will be driven into the slough with a vibrator mounted on a barge and then the cells will be filled with dirt/rock after cell placement. Adjacent to the flow restrictor structure, a portage will be built on the existing Outer Bair levee to facilitate small boat passage at low tide. A 15 x 15 foot wooden observation platform and interpretive signs will be placed at levee level extending west from the levee surface, over the existing borrow ditch. A ditch block will be placed across the Outer Bair Island borrow ditch at the flow restrictor site, as well as in the borrow ditch between OB3 and OB4.

The two flow constrictors will be similar. The objective of the Smith Slough structure (FC2), which will be built between IB1 and IB2, is to redirect all tidal flow in Smith Slough to the remnant slough within Inner Bair. The IB2 breach would be armored to prevent uncontrolled increase in breach dimensions. This would prevent increased flow velocities at Pete's Outer Harbor. With exception of the notch, this structure will be similar to that in Corkscrew Slough.

Task 3: Construct Middle Bair Island Decant Water Placement Improvements.

21. As needed to contain decant water from dredge fill placement operations on Inner Bair Island scheduled to begin in June 2008, minor modifications to the levee on Middle Bair Island may be required to contain decant water. In addition to minor rising of Middle Bair levees, a rock apron will be required at the outlet location of the dredge pipe to prevent erosion. All decant water will be contained on Middle Bair Island and no decant effluent discharge will occur during the construction phase of the project.

Task 4: Construct levee breaches at Middle Bair Island at MB1, MB2, MB3, and MB4; ditch blocks MBDB1 through MBDB4; and channel connectors MBCC1 through MBCC4 and subsequently breach Middle Bair Island (2009). Construct levee breach at Outer Bair OB3.

22. Using an amphibious excavator (or similar equipment), four ditch blocks will be placed in borrow ditches and four channel connectors will be excavated across internal levees of Middle Bair Island. Material for the ditch blocks may be obtained after pickleweed removal from the levee along Steinberger Slough, if needed (up to 0.55 acres, not to fall below +6 feet NGVD). Levee breaches at MB1 through MB4 will be constructed to breach Middle Bair Island for habitat restoration. Levee breach at OB3 will be constructed to complete breaches on Outer Bair for habitat restoration. Clapper rail counts will be conducted prior to construction at all locations following Fish and Wildlife Service (FWS) protocols.